Chapter 3 Review
p.182-183
q. 1-9

Ch 2
p 120-121
1, 3-6, 8-13, 15-19

# Test Wednesday

Oct 12-7:51 AM

Section 2.1 - Expansion Foil
$(x+7)(x-3) \Rightarrow x^2+7x-3x-21$
$x^2+4x-21$
Section 2.2 - Factoring (Common)
$27x^2-9x \quad 9x(3x-1)$
$9x=0 \quad 3x-1=0$
$x=\frac{1}{3}$
Section 2.3 - Decomposition
$x^2+8x+20 \quad +9 \quad 4|M|20$
Section 2.4 - Special Factoring
$49a^2+42a+9=0$
$7a \times 3 \vee 2=42a$
$(7a+3)^2 \quad (a^2-9)$
Steps Factoring
i) common factor
ii) perfect squares / difference of squares
iii) decomposition
iv) nonfactorable / quad formula

Oct 13-9:44 AM

$x^2-2x-35$
$-2 \quad A|M \quad -35$
$x^2-7x+5x-35$
$-7 \quad +5$
$(x-7)(x+5)$
$7, -5$
$\frac{5+t}{2} = \frac{7-5}{2} = \frac{2}{2}$
$=1$

Oct 13-10:19 AM

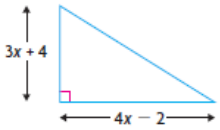
$2x^2+7x+3$
$A|M$
$+7 \quad +6$
$2x^2+1x+6x+3$
$+1 \quad +6$
$2 \quad 3$
$x(2x+1)+3(2x+1)$
$(2x+1)(x+3)$
$s=-\frac{1}{2}, t=-3$

Oct 13-10:32 AM

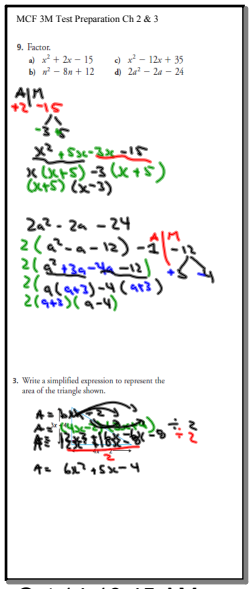
MCF 3M Test Preparation Ch 2 & 3

9. Factor.
a) $x^2+2x-15$ c) $x^2-12x+35$
b) $n^2-8n+12$ d) $2a^2-2a-24$

3. Write a simplified expression to represent the area of the triangle shown.




Oct 14-10:45 AM




Oct 14-10:45 AM

$x^2 - 12x + 35$ A | M

$-12$ | $+35$

$x^2 - 7x - 5x + 35$

$x(x-7) - 5(x-7)$

$(x-7)(x-5)$

$-7$ $-5$

Oct 3-8:36 AM

5. Factor.

a) $8x^2 + 10x + 3$ d) $15x^2 - 4x - 4$

13. Factor.

a) $6x^2 + 11xy + 3y^2$ c) $8x^2 - 14xy + 3y^2$

Oct 11-7:35 AM

5. Factor.

a) $8x^2 + 10x + 3$ d) $15x^2 - 4x - 4$

$8x^2 + 6x + 4x + 3$ A | M

$+10$ | $+24$

$2x(4x+3) + 1(4x+3)$ $6$ $4$

$(2x+1)(4x+3)$

A | M

$-4$ | $-60$

$+6$ $-10$

13. Factor.

a) $6x^2 + 11xy + 3y^2$ c) $8x^2 - 14xy + 3y^2$

$6x^2 + 9xy + 2xy + 3y^2$ A | M

$+11$ | $+18$

$3x(2x+3y) + y(2x+3y)$ $9$ $2$

$(2x+3y)(3x+y)$

Oct 11-7:35 AM

7. A field-hockey ball must stay below waist height, approximately 1 m, when shot; otherwise, it is a dangerous ball. Sally hits the ball. The function $h(t) = -5t^2 + 10t$, where $h(t)$ is in metres and $t$ is in seconds, models the height of the ball. Has she shot a dangerous ball? Explain.

Oct 11-7:38 AM

7. A field-hockey ball must stay below waist height, approximately 1 m, when shot; otherwise, it is a dangerous ball. Sally hits the ball. The function $h(t) = -5t^2 + 10t$, where $h(t)$ is in metres and $t$ is in seconds, models the height of the ball. Has she shot a dangerous ball? Explain.

$h(t) = -5t^2 + 10t$

$1 = -5t^2 + 10t$

$0 = -5t^2 + 10t - 1$

TI83 solve for roots

$h(t) = -5t^2 + 10t$

$h(t) = -5t(t-2)$

$0 = -5t$ $0 = t - 2$

$5 = 0$ $t = 2$

$\frac{5+t}{2} = \frac{0+2}{2} = \frac{2}{2} = 1$

$h(t) = -5t^2 + 10t$

$h(1) = -5(1)^2 + 10(1)$

$h(1) = -5(1) + 10$

$h(1) = -5 + 10$

$h(1) = +5$ h k

$(1, 5)$

Oct 11-7:38 AM

Oct 8-7:28 AM